

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

<b>To:</b> CHOI, Han Soo  3F., Jeong Bldg. 307-3 Yangjeong-dong, Busanjin-gu Busan 614-050 Republic of Korea		Date of mailing <i>(day/month/year)</i> <b>04 NOVEMBER 2004 (04.11.2004)</b>	
Applicant's or agent's file reference PCT2004003		<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No. <b>PCT/KR2004/001809</b>	International filing date <i>(day/month/year)</i> <b>20 JULY 2004 (20.07.2004)</b>	Priority date <i>(day/month/year)</i> 19 DECEMBER 2003 (19.12.2003)	
International Patent Classification (IPC) or both national classification and IPC  <b>IPC7 C08J 9/22, B29C 44/00</b>			
Applicant  <b>PARK, Jang Won</b>			

**1. This opinion contains indications relating to the following items:**


- ☒ Box No. I    Basis of the opinion
- ☐ Box No. II    Priority
- ☐ Box No. III    Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV    Lack of unity of invention
- ☒ Box No. V    Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI    Certain documents cited
- ☐ Box No. VII    Certain defects in the international application
- ☐ Box No. VIII    Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.  
For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea  Facsimile No. 82-42-472-7140	Authorized officer  SOHN, Chang Ho  Telephone No. 82-42-481-5538
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International application No.

PCT/KR2004/001809

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-27	YES
	Claims	none	NO
Inventive step (IS)	Claims	1-27	YES
	Claims	none	NO
Industrial applicability (IA)	Claims	1-27	YES
	Claims	none	NO

2. Citations and explanations :

The following documents identified in the International Search Report have been considered for this report:

D1 : JP 2002-19047 A (Kanegafuchi Chem. Ind. Co., Ltd.) 22 January 2002

D2 : JP 2003-64215 A (Kayama Yoshitoshi) 05 March 2003

Claims 1-27 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest any of the embodiments as specifically set forth in the claims.

The invention described in independent claims 1 and 22 relates to a crosslinked foam which has an inner-cavity structure, and a process of forming the same.

Comparing claims 1 and 22 with D1-D2, the subject matter of these claims differs from the teachings of D1-D2 in that it includes an inner-cavity structure of an arbitrarily shaped surface. According to the present invention, the density of the molded body can be differentiated depending on the portions and the manufacture of a molded body having various characteristics and functions can be possible with the only one step of expanding.

Therefore, the subject matter of independent claims 1 and 22 is considered to be novel and to involve an inventive step; consequently, the subject matter of dependent claims 2-21, 23-27 is also novel and inventive.

Claims 1-27 meet the criteria of PCT Article 33(4), IA, because the invention is industrially applicable.